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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/666,932

09/17/2003

Kameshwar Poola

AWS-035

6474

25199

7590

11/17/2005

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EXAMINER

WACHSMAN, HAL D

ART UNIT

PAPER NUMBER

2857

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
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EXAMINER

ART UNIT	PAPER
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11092005

DATE MAILED:

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Commissioner for Patents

Hal D Wachsman
Primary Examiner
Art Unit: 2857

61

Office Action Summary

Application No.

10/666,932

Applicant(s)

POOLLA, KAMESHWAR

Examiner

Hal D. Wachsman

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 1-12 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20 is/are allowed.
- 6) ☒ Claim(s) 13-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9-16-04</u> . | 6) <input type="checkbox"/> Other: _____ |

1. Applicant's election without traverse of species II (claims 13-20) in the reply filed on 7-26-05 is acknowledged.
2. Claims 1-12 stand withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 7-26-05.
3. The drawings contain a sheet numbering in the upper right hand corner which is not necessary as the figures contain the appropriate figure number labeling and therefore the sheet numbering should be deleted.
4. The Abstract is objected to because it is less than 50 words. Appropriate correction is required.
5. On page 4 of the specification the brief description of the drawings is entitled as "DESCRIPTION OF THE DRAWINGS" instead of "BRIEF DESCRIPTION OF THE DRAWINGS". In addition, the brief description for each figure does not indicate for which embodiment of the invention each figures flowchart is for. Appropriate correction is required.
6. The CROSS-REFERENCES section on page 1 of the specification does not provide the current status of U.S. application serial numbers 09/643,614 and 09/816,648 and does not provide the U.S. provisional serial no. for the provisional application identified with case Docket No. AWS-003. Appropriate correction is required.
7. Page 1, line 30, of the specification cites "...are an extremely complex...." but an extremely what exactly is being referred to here ? Appropriate correction is required.

8. Page 3, lines 16-17, of the specification cites "...The invention is capable of other embodiments..." however "capable of" implies that the invention may or may not do what is being cited and specifically what other embodiments are being referred to here ? Appropriate correction is required.

9. Page 4, lines 10-11, of the specification indicates that elements in the figures have not necessarily been drawn to scale. However, the figures consist solely of a couple of flowcharts so it is not clear then what elements are being referred to here. Appropriate explanation/correction is required.

10. Page 5, line 18, of the specification cites "capable of" which implies that the invention may or may not do what is being cited here. In addition, line 22 of page 5, does not provide the current status of U.S. application serial no. 09/643,614. The Examiner also respectfully notes what appears to be a grammatical error on page 8, line 6 of the specification: "the fingerprinting *the* of the data record". Appropriate correction is required.

11. The declaration is objected to because it indicates that provisional serial no. 60/411,857 was filed on September 18, 2003. However, the actual filing date of this provisional application is September 18, 2002. Appropriate correction is required.

12. Claims 13-20 are objected to under 37 C.F.R. 1.75(a) for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Claim 13, step i, cites "fingerprinting the first data set and the second data set" which does not particularly point out in what way exactly are these data sets being fingerprinted. There is a lack of a clear connection between steps ii and iii in claim 1 in

that step iii, the comparing step makes no reference to the correspondences between transition points that were found in step ii. Claim 16, lines 3-4, cite "time-stretching at least one portion of the first data set and of the second data set by inserting interpolated values so as to produce an equal number of data points..." which does not particularly point out how exactly the interpolated values are inserted to accomplish what is being cited in the claim. This same type of problem also occurs in claim 17, step A, and claim 29, step A. Claim 17, line 3, cites "each interval" which it appears should be "each data interval". This same type of problem also occurs in claim 20, line 7. The examiner asks the applicant to better claim the limitations cited above. While the examiner understands the intentions of the applicant he feels confusion could be drawn from the limitations cited above. Appropriate correction is required.

Claim Rejections - 35 USC § 101

13. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

14. Claims 13-19 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims recite a mathematical algorithm (see specification page 6, lines 29-30, "calculation algorithm", specification page 7, lines 14-15, "numerically differentiating the signature", lines 20-25 fitting using basis functions, specification page 8, lines 11-12, "matching algorithm", for example) *which as claimed is not computer implemented*. In addition, there is no clearly defined practical

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application of the claimed method or does not draw a conclusion as to the final end result of the mathematical operation being directed toward a practical application and as the claimed method does not produce a useful, concrete and tangible result, the claimed invention is directed to non-statutory subject matter.

Claim Rejections - 35 USC § 102

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

16. Claims 13-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Smaha et al. (5,557,742).

As per claim 13, Smaha et al. (Abstract, figures 4, 5a, col. 8 lines 60-67, col. 9 lines 1-53) disclose “fingerprinting the first data set and the second data set”. Smaha et al. (Abstract, figures 3, 5b, col. 8 lines 40-59, col. 9 lines 42-45, 54-63, col. 10 lines 15-29, col. 12 lines 17-28, 46-51) disclose “finding correspondences between transition points in the first data set and the second data set”. Smaha et al. (Abstract, figure 5b, col. 10 lines 21-35, col. 75 lines 21-26) disclose “comparing the first data set and second data set to determine whether the first data set and the second data set match”.

As per claim 14, Smaha et al. (Abstract, col. 11 lines 8-13) disclose the feature of this claim.

As per claim 15, Smaha et al. (col. 10 lines 64-67, col. 11 lines 2-5) disclose the feature of this claim.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smaha et al. (5,557,742).

As per claim 19, Smaha et al. (col. 9 lines 61-63) disclose that the combination of unlimited transition functions and states also allows the representation of any pattern of events. Consequently, it would have been obvious to a person of ordinary skill in the art at the time the invention was made that because any pattern of events could be represented the technique could be used in a wide variety of processes including an electronic device fabrication process.

19. Claim 20 is allowed subject to the appropriate correction of the 37 C.F.R. 1.75(a) objections noted in paragraph 12 above.

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20. The following references are cited as being art of general interest: Poolla et al. (6,907,364) which disclose deriving thermal flux data for processing a workpiece, Lin et al. (6,594,536) which disclose dynamic matching of wafer lots waiting for processing and available tools to maximize wafer output, Kram et al. (6,134,032) which disclose the matching of predetermined sequences to identify system faults, Brunk et al. (US 2002/0126872 A1) which disclose fingerprinting and signature matching and Poisner (6,247,151) which disclose signature comparison.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hal D. Wachsman whose telephone number is 571-272-2225. The examiner can normally be reached on Monday to Friday 7:00 A.M. to 4:30 P.M..


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on 571-272-2216. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Hal D Wachsman
Primary Examiner
Art Unit 2857

HW
November 9, 2005